

## Abstract of the Disclosure

The invention provides a manufacturing method of a laser diode having buried grown layer with less crystal defects and with low consumption power and having high reliability in a buried heterostructure laser diode using an InGaAlAs type material as an active layer, by preventing the inhibition of burying and regrowing of the active layer caused by oxidation of Al contained in the active layer.

A manufacturing method of a semiconductor laser diode, and the active layer comprises a material at least containing Al and having a buried hetero-cross sectional structure, formation of the buried heterostructure, comprising the steps of fabricating the active layer into a stripe shape or mesa shape by etching including at least wet etching, cleaning the stripe-shape sidewall of the core layer with a gas containing chlorine or other halogen element in a crystal growing apparatus and burying the active layer in the semiconductor.